Amendments to the Claims:

JC17 Rec'd PCT/PTO 14 JUL 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 16 (cancelled)
- 17. (new) An orientable longitudinal structure comprising:

substantially longitudinal actuators made of shaped memory alloy, n-doped and p-doped Peltier elements and electric operating means;

said actuators being arranged in pairs and positioned antagonistically; and

each said actuator being in contact substantially at its ends with an n-doped Peltier element and a p-doped Peltier element, respectively.

- 18. (new) The orientable longitudinal structure as claimed in claim 17, wherein said actuators are leaves, preferably one-piece leaves.
- 19. (new) The orientable longitudinal structure as claimed in claim 18, wherein said leaves are one-piece leaves.
- 20. (new) The orientable longitudinal structure as claimed in claim 17, wherein each said n-doped and p-doped Peltier element is in contact with a partially annular conducting element.

- 21. (new) The orientable longitudinal structure as claimed in claim 20, wherein said conducting element is made of copper.
- 22. (new) The orientable longitudinal structure as claimed in claim 20, wherein each said n-doped and p-doped Peltier element is welded to said conducting element.
- 23. (new) The orientable longitudinal structure as claimed in claim 17, wherein said actuators, associated with the Peltier elements, are positioned diametrically opposite each other with respect to a longitudinal axis of the structure.
- 24. (new) The orientable longitudinal structure as claimed in claim 17, wherein said actuators are welded to said n-doped and p-doped Peltier elements.
- 25. (new) The orientable longitudinal structure as claimed in claim 17, wherein said actuators are made of nickel titanium (NiTi) alloy.
- 26. (new) The orientable longitudinal structure as claimed in claim 17, wherein said Peltier elements are made of bismuth telluride.
- 27. (new) The orientable longitudinal structure as claimed in claim 17, further comprising epoxy resin covering said Peltier elements including thermoelectric junctions with said actuators.
- 28. (new) An endoscope comprising a longitudinal body having, at its distal end, a viewing system, wherein at least part of the longitudinal body is formed using at least one orientable longitudinal structure as claimed in claim 1.

- 29. (new) The endoscope as claimed in claim 28, wherein at least part of the longitudinal body is formed of a plurality of said orientable structures, said orientable structures being stacked on top of one another in such a way that a conducting element of one of said orientable structures bearing the n-doped elements is adjacent to a conducting element bearing the p-doped Peltier elements of an adjacent orientable structure.
- 30. (new) The endoscope as claimed in claim 28, wherein the actuators of at least one orientable structure present, with the actuators of another orientable structure, deform in different directions.
- 31. (new) A method of manufacturing an orientable longitudinal structure as claimed in claim 18, wherein said method comprises, in succession:

preparing SMA actuators consisting in cutting leaves presenting a curved shape from a sheet of SMA, said curved shape of the leaves corresponding to a "memorized" shape;

cooling said leaves until substantially straight leaves are obtained; and

assembling said leaves obtained during the previous step with said Peltier elements, said assembly step consisting in incorporating said leaves between said n-doped and p-doped Peltier elements.

32. (new) The manufacturing method of claim 31, wherein said cutting step comprises cutting said leaves from a sheet of SMA made of NiTi.

- 33. (new) The manufacturing method as claimed in claim 31, further comprising assembling said Peltier elements with partially annular conducting elements.
- 34. (new) The manufacturing method as claimed in claim 31, wherein the assembly steps comprising welding said leaves to said Peltier elements.
- 35. (new) The manufacturing method as claimed in claim 31, further comprising pouring resin to cover said Peltier elements, including thermoelectric junctions with said actuators.